



UNITED STATES PATENT AND TRADEMARK OFFICE

cen

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,461	07/17/2003	Takeshi Misawa	0649-0901P	9184
2292	7590	11/30/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			TRAN, THIEN F	
			ART UNIT	PAPER NUMBER
			2811	

DATE MAILED: 11/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/620,461

Applicant(s)

MISAWA, TAKESHI

Examiner

Thien F. Tran

Art Unit

2811

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 4-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3 and 11-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed, semiconductor device with a photoelectric converting portion and a light-shading means.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Itabashi et al. (US 5,097,304).

Itabashi et al. teaches a semiconductor device (Fig. 2A) comprising: a semiconductor substrate (14) having a front surface and rear surface, a photoelectric converting portion being formed on the front surface; a light-shading means (112) for shading an incoming light from the rear surface of the semiconductor substrate to said photoelectric converting portion, wherein said light-shading means is formed at an area corresponding to at least the photoelectric converting portion, said area being on the rear surface of the semiconductor substrate.

Claim 2 is rejected under 35 U.S.C. 102(a) as being anticipated by Murade et al. (US 6,433,841).

Murade et al. teaches a semiconductor device (100, Figs. 17) comprising: a semiconductor substrate (1a) having a front surface and rear surface, a photoelectric converting portion being formed on the front surface; a light-shading means (11) for shading an incoming light from the rear surface of the semiconductor substrate to said photoelectric converting portion, wherein said light-shading means is formed at an area corresponding to at least the photoelectric converting portion, said area being on the rear surface of the semiconductor substrate. Murade et al. further discloses a wiring board (1308) with a connecting terminal formed on the rear surface of the electrical optical apparatus (100, Fig. 80) which is on the rear surface of the semiconductor substrate (1a).

Allowable Subject Matter

Claims 3, 11, 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 09/08/2006 with respect to claim 1 have been fully considered but they are not persuasive. Applicant argues that Itabashi does not address the problem of light reflecting from the rear surface which is not true. Itabashi et al. clearly discloses that the light shielding layer is required to shield the light from directly reaching the sensor (8) from the light source (30) in addition to the light reflected by the image (col. 2, lines 23-41). Also, it is noted that the claim limitation "for shading an incoming light from the rear surface of the semiconductor substrate to said

Art Unit: 2811

photoelectric converting portion" in claim 1 is taken to be functional language and is nonlimiting since it has been held that claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. In re Danley, 120 USPQ 528, 531 (CCPA 1959). "Apparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). Itabashi et al. has the claimed structure having the means as claimed; therefore, Itabashi et al. is capable of performing the function as claimed. Furthermore, a functional statement cannot serve to distinguish a claim, which is not a process claim, from a reference since it does not define any structure. In re Mason, 244 F.2d 733, 114 USPQ 127 (CCPA 1957). Again, it is noted that the Itabashi reference as described above clearly discloses the claimed function, to shade the incoming light from the rear surface of the semiconductor substrate due to the existence of the light shielding layer (112) on the rear surface of the semiconductor substrate (see col. 2, lines 23-41). Applicant also asserts that the light shading means is not formed on the rear surface of the semiconductor substrate, but instead on the surface of the transparent substrate (11). It is true that the light shading means (112) is on the surface of the transparent substrate (11) but it is also on the rear surface of the semiconductor substrate (14). It is noted that "on" is not the same as "in physical contact".

Art Unit: 2811

Applicant's arguments with respect to claim 2 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thien F. Tran whose telephone number is (571) 272-1665. The examiner can normally be reached on 8:30AM - 5:00PM Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2811

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Thien F Tran
Primary Examiner
Art Unit 2811

tt
November 21, 2006